

THE UNITED SHATES OF AVIETACA

TO ALL TO WHOM THESE; PRESENTS SHALL COME;

University Patents, Inc.

Whereas, there has been presented to the

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, therefore, this certificate of plant variety protection is to grant unto the said applicant(s) and the successors, heirs or assigns of the said applicant(s) for the term of acceptant. Years from the date of this grant, subject to the payment of the required fees and periodic replenishment of viable basic seed of the variety in a public repository as provided by LAW, the right to extide others from selling the variety, or offering it for sale, or reproducing it, apporting it, or exporting it, or using it in producing a hybrid or different by therefrom, to the extent provided by the Plant Variety Protection Act.

United States seed of this variety (1) shall be sold by variety name only as a certified seed and (2) shall conform to the number of generations the owner of the rights. (84 stat. 1542, as amended, 7 u.s.c. 2321 et seq.)

WATERMELON

"Vic's Valentine"

In Tratimony Waterest, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 21st day of December in the year of our Lord one thousand nine hundred and seventy-eight

Aure

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

UNITED STATES DEPARTME	CETING SERVICE			FORM APPROVED OMB NO. 40-R3822
LIVESTOCK, POULTRY, GRA APPLICATION FOR PLANT VARIE INSTRUCTIONS: See Reverse.			No certificate for pla be issued unless a co has been received (5 l	ant variety protection may
1a. TEMPORARY DESIGNATION OF VARIETY	1b. VARIETY NAM	E		AL USE ONLY
VARIETT	VIC'S VALENT	INE	PV NUMBER 78	00090
2. KIND NAME	3. GENUS AND SPE	i i	5-30-78	** A.M.
Watermelon	Citrullus la	inatus	FEE RECEIVED	DATE
4. FAMILY NAME (BOTANICAL)	5. DATE OF DETE	RMINATION	s <u>500.∞</u>	5-30-78
Cucurbitaceae	July 1976		\$ 4.50.00	9-26-78
6. NAME OF APPLICANT(S)	[Code)	t and No. or R.F.D. No.,	City, State, and ZIP	8. TELEPHONE AREA CODE AND NUMBER
University Patents, Inc.		er Street Connecticut O	6905	
9. IF THE NAMED APPLICANT IS NOT A PE ORGANIZATION: (Corporation, partnersh	RSON, FORM OF ip, association, etc.)	10. IF INCORPORAT	ED, GIVE STATE AND PORATION	11. DATE OF INCOR- PORATION
Corporation 12. NAME AND MAILING ADDRESS OF APPI			elaware	8/12/71
Michael F. Borun, Esq. Merriam, Marshall & Bicknel Two First National Plaza 13. CHECK BOX BELOW FOR EACH ATTACH X 13A. Exhibit A, Origin and Bree X 13B. Exhibit B, Novelty Statem X 13C. Exhibit C, Objective Descr X 13D. Exhibit D, Additional Descr X 13D. Exhibit D, Additional Descr X 13D. Exhibit D, SPECIFY THAT SEED? (See Section 83(a). (If "Yes," answer 14b. DOES THE APPLICANT(S) SPECIFY THAT LIMITED AS TO NUMBER OF GENERATION YES X NO 15a. DID THE APPLICANT(S) FILE FOR PROTINAME of countries and dates.)	iment submitted: ding History of the ent. iption of the Variety cription of the Varie r SEED OF THIS VAR er 14B and 14C below.) THIS VARIETY BE ONS?	Variety (See Section 5 (Request form from ty. IETY BE SOLD BY VAR YES 14c. IF "YES," TO 14 TION BEYOND E FOUNDATION RIETY IN OTHER COURT	Plant Variety Protects RIETY NAME ONLY AS NO 7/-7/11/2 B, HOW MANY GENERA REEDER SEED? REGISTERED NTRIES? YES	ion Office.) A CLASS OF CERTIFIED 2/78
15b. HAVE RIGHTS BEEN GRANTED THIS VA and dates.)	RIETY IN OTHER CO	nje přímně kladice nasy. Přimně nastrou adou	X NO (If "Yes,"	
16. DOES THE APPLICANT(S) AGREE TO THE JOURNAL?	E PUBLICATION OF H	IIS/HER (THEIR) NAMI	E(S) AND ADDRESS IN	THE OFFICIAL
17. The applicant(s) declare(s) that a viable replenished upon request in accordance	sample of basic see	d of this variety will b	e furnished with the a	pplication and will be
The undersigned applicant(s) is (are) th variety is distinct, uniform, and stable a 42 of the Plant Variety Act.	e owner(s) of this se	xually reproduced no	vel plant variety, and l	believe(s) that the provisions of Section
Applicant(s) is (are) informed that false	representation here	in can jeopardize prot	tection and result in p	enalties.
Oct. 27, 1978	n i van eksnik sij Resion ne sekaline	_ </td <td></td> <td></td>		
(DATE)		Vice-	SIGNATURE OF APPLIC President	CANT)

(SIGNATURE OF APPLICANT)

(DATE)

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

- Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties:

 (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.
- 14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

NIVERSITY PATENTS, Inc.
Robert Edward Foster II

1/26/78 1601 West Main Street
Mesa, Arizona 85202

7800090

EXHIBIT "A"

ORIGIN AND BREEDING HISTORY OF VARIETY

VIC'S VALENTINE

A. Progenitor Stocks

- (1) Watts Watermelon breeding line [See, Proc. Amer. Soc. Hort. Sci., Vol. 81, pp. 498-505 (1962)]
- (2) "Peacock" Watermelon (commercially available, e.g., from Asgrow, Northrup King, etc.)

B. Breeding History *

- (1) Watts male sterile (gms gms) crossed by "Peacock."
- (2) F₁ selfed and sib-crossed (open pollinated in isolation).
- (3) F₂ gms gms back-crossed by "Peacock."
- (4) Steps (2) and (3) repeated for three more delayed back-crosses by "Peacock."
- (5) Resulting back-cross 4 F2 crossed gms gms x gms (open pollinated).
- (6) Step 5 repeated through F_6 which segregates 1 gms gms : 1 gms gms $^+$
- * In each step, selections were made for desirable fruit type, shipping ability, and seed production.

UNIVERSITY PATENTS, Inc. Robert Edward Foster II
1601 West Main Street
Mesa, Arizona 85202

7800090

EXHIBIT "B"

NOVELTY STATEMENT

VIC'S VALENTINE

"VIC'S VALENTINE" is a true breeding line which most closely resembles "Peacock" (shipping) type watermelon but carries a recessive gene for male sterility plieotropic with glabrous plant condition allowing for selection of one hundred percent male sterile plants for use in hybrid seed production.

ap 470-19	
ORM GR-470-19	
(1-15-75)	•
and the second	

EXHIBIT C (Watermelon)

UNITED STATES DEPARTMENT OF AGRICULT UNITED STATES DEPARTMENT OF AGRICULT AGRICULTURAL MARKETING SERVICE AGRICULTURAL MARKETING 20782	TURE
DRM GR-470-19 UNITED STATES DEPARTMENT OF AGRICULT AGRICULTURAL MARKETING SERVICE AGRICULTURAL MARKETING SERVICE AGRICULTURAL MARKETING SERVICE GRAIN DIVISION GRAIN DIVISION HYATTSVILLE, MARYLAND 20782 HYATTSVILLE, MARYLAND OF VARIE OBJECTIVE DESCRIPTION OF VARIE WATERMELON (CITRULLUS LANATU	and the second s
UNITED STATES DE MARKETING	The second section of the second seco
AGRICO GRAIN DIVAND 20782	LA Your Parent the Parents, other
DRM GR-470-19 DESCRIPTION OF VANATU	S) IISE ONLY
OBJECTIVE DESCRIPTION CITRULLUS LAWATE	FOR OFFICIAL VO
DRM GR-470-19 UNITED STATES UN MARKETING AGRICUL TURAL MARKETING GRAIN DIVISION 20782 HYATTSVILLE, MARYLAND OBJECTIVE DESCRIPTION OF VARIE WATERMELON (CITRULLUS LANATU	BYPO NUMBER
	1 PAI (1) V V V 3 DAR
	VARIETY NAME OR TEMPORAL DESIGNATION DESIGNATION
NAME OF A State, and ZIF	DESIGNATIONE
and the second s	VARIETY NAME DESIGNATION VALENTINE
NSTRUCTIONS: NAME OF APPLICANT(S) UNIVERSITY PATENTS, Arc. UNIVERSITY PATENTS, Arc. ONLY STATE OF COMMENT STREET ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)	Lalows
ADDRESS (Street and No. or R.F.D. No., City, and R.F.D. No., City, and No. or R.F.D. No., City, and No.	the boxes below
Stain Co. Stain	s or 9 or less
9 216 when number is either	Control of the Contro
the appropriate number than 19 or 0171	
place the art in first box (co. Line)	x) CELL OF CLASSES MOON A
BOUND SIM	
1 TYPE	4 = MOST AREAS
OBLONG PROPERTY OF THE PROPERT	4 = MOST A.
1 3 = SOL	THWEST 4
2. AREA OF BEST ADAPTATION: 2 = NORTHEAST/NORTHCENTRAL 3 = SOUTH 2 = NORTHEAST/NORTHCENTRAL 3 = SOUTH 1 = SOUTH 2 = NORTHEAST/NORTHCENTRAL 3 = SOUTH 2 = NORTHEAST/NORTHCENTRAL 3 = SOUTH 2 = NORTHEAST/NORTHCENTRAL 3 = SOUTH 3 = SOUTH 2 = NORTHEAST/NORTHCENTRAL	- ONAT. DESCRIPTION
2 = NORTHEAD TOR ADDIT	TIONAL DESCRIPTION TO A MODELLE SAME
1 = SOUTH EXHIBIT "D	EA 100 ALACK 36 ALCORETA
3 1 = SOUTH 3. EMERGENCE TO ANTHESIS: SEE EXHIBIT 1 = CHARLESTON GR	
NO OF DAYS EARLIE	TO S WE THEN
NO. OF DAYS LATER THAN	
NO OF DAYS LATER	Company Martin
NO.	BREY
4 POLLINATION TO MATURITY: 4 POLLINATION TO MATURITY: 1 = CHARLESTON G	Baby
4. POLLINA	v Sugar Day
4. POLLINATION 10 NO. OF DAYS EARLIER THAN 1 2 2 = OTHER (Specif	y) Sugar Baby
0 5 NO. OF DAYS LATER THAN 2) 2	The state of the s
TIO NO. OF DAYS LA	
1100	:
5. PLOIDY:	MOECIOUS
5. PLOIDY: 2 = TETRAPLOID 3 = TRIPLOID	2 = ANDROMONOECIOUS
1 = DIPLOID	- AAECIOUS
	- AE MAN'
6. PLANT 2 = FOLDED	4 NO. CROWN
= FIAI	
1 Cotysted	01 - 01 - 010
Number of flowers per plant at first fruit set: Number of flowers per plant at first fruit set: 1 5 STAMINATE 0 6 PISTILLATE 7. STEM: SEE EXHIBIT "D" FOR ADDITIONAL 0 2 = ANGULAR 3 = PU	DESCRIPTION
STAMINATE OF ADDITIONAL	DESCRIP
1 5 TVHTBIT "D" POR	MM. DIAMET
SEE EXILLA	O BRISTLED
7. STEM	BESCENT
1 = ROUND 2 = SCABROUS 3 = PU 1 = GLABROUS 2 = SCABROUS (At last harvest	
1 = ROUND 3 = FOOTH AND STATE AND ST	· Committee of the second of t
1 = GLABROUS	7,50
NO. OF INTERNODES	TOCPTPTION 2= LENGTH-WIDTH EQ
CM. VINE LENGTH	AL DESCRIPTION AL DESCRIPTION 1 = LONGER THAN WIDE 2 = LENGTH-WIDTH EQ. 1 1 = WIDER THAN LONG
1 5 FOR ADDITE	$\Delta I = A = WID^{-1}$
CM. VINE LENGTH : NO. OF INTERNODES (AT last III) 8. LEAF: SEE EXHIBIT "D" FOR ADDITION 2 = OBOVATE 3 = ROUND	2 = GRAY GREE
<u>_</u>	GRAY GREEN 2 GRAY GREE
1 = OVATE	1 = LIGHT GREEN 4 = DARK GREE
-ocent	1 = LIGHT GREEN 2 = GHA. 1 = LIGHT GREEN 4 = DARK GREE 3 = MEDIUM GREEN 4 = DARK GREE
Dorsal Surface: 1 = SMOOTH 2 = PUBESCEN!	FICERTPTION
The state of the s	FOR ADDITIONAL DESCRIPTION
Ventral Surface:	
	t: CM. ACROSS
ONER (At first fruit sec).	No. of the second secon

9. FLOWER (At first fruit set):

Staminate: CM. ACROSS

WERE CONTINENT WARRELLNESS FROM

UNIVERSITY PATENTS, Inc. Robert Edward Foster II 1601 West Main Street Mesa, Arizona 85202

7800090

EXHIBIT "D"

ADDITIONAL DESCRIPTION OF VARIETY

			<u>V10</u>	C'S VALENTI	LNE						
PART SUPPI	I EMEN	т то н	EXHIB IT '	'C" DESCRII	PTIC	ON OF	THE	VAR	IETY		
	Item	No. 3	<u> – Emer</u>	gence to Ar	nthe	esis					
		Male	Sterile	segregates	s –	2 0	0	days	LATER	than	
				•				Char	leston	Grey	
		Male	Fertile	segregates	s -	0	<u>5</u>]	days	LATER	than	
								Char	leston	Grey	
									AND		
			•			0 !	5	days	EARLI	ER th	.an
	`.							Jubi	lee.		÷
	Item	No. 7	Stem	# # # # # # # # # # # # # # # # # # #							
		Male	Sterile	segregates	s -	1	GLA	.BROU	ıs	•	
v * •		Male	Fertile	segregates	s –	3	PUB	ESCE	NT		
	Item	No. 8	<u> - Leaf</u>								
		Male	Sterile	segregates	s -		SMC	ОТН	Dorsal	and	
							Ven	tral	Surfa	ces	
		Male	Fertile	segregates	s -	2	PUE	ESCE	ENT Dor	sal a	ınd
•							Ven	tral	Surfa	ices	
	Item	No. 9	_ Flow	er							
		Male	Sterile	segregates	s -	Stam.	inat	e:	0 1	CM.	ACROSS

PART II ADDITIONAL DESCRIPTION

Male Fertile segregates - Staminate:

CM. ACROSS

7800090

variety of watermelon which, for the first time, makes possible the field production of pure F, hybrid seed without expensive chemical treatment or hand pollination. This remarkable utility derives from the fact that plants grown from "VIC'S VALENTINE" seed can be easily segregated as male steriles (optimal 4 parents for hybrids) and male fertiles owing to the genetic "linkage" of the male sterility factor to a glabrous plant surface "marking" characteristic. By way of illustration, a population of "VIC'S VALENTINE" of any selected size will, when planted out, give rise to plants, approximately fifty percent of which are genic male steriles (homozygous qms qms) and approximately fifty percent of which are genic male fertile (heterozygous gms gms +). The male steriles will display glabrous characteristics while the male fertiles display hirsute characteristics -- all sufficiently well in advance of flowering that the male fertiles can be removed from the population and permit the male steriles to serve as + parents for hybridization with another selected variety.

Attached hereto as Appendix 1 is a reprint of the publication by Watts [Proc. Amer. Soc. Hort. Sci., Vol. 81, pp. 498-505 (1962)] which contains photographic illustrations of the glabrous condition exhibited by a male sterile mutant found in a "Sugar Baby" stock following gamma irradiation.

"VIC'S VALENTINE" may be quite easily <u>maintained</u> by planting the stock in isolation and harvesting seed only from the glabrous plants. Seed yields will be improved if measures are taken to maintain staminate flower production until

pistillate flowering is completed on glabrous plants. (Note that, owing to the recessive nature of the <u>ms</u> allele, seed harvested from hirsute "VIC'S VALENTINE" plants can be expected to be 25% homozygous male sterile <u>gms gms</u>, 50% heterozygous male fertile <u>gms gms</u>, and 25% homozygous male fertile <u>gms gms</u>. Such a seed population would not be of substantial use in hybridization, but could always be employed to further maintain the variety.)

Hybrids of "VIC'S VALENTINE" and any other selected line can be produced at modest cost by following three simple steps: (1) sow "VIC'S VALENTINE" and then rogue out hirsute individuals; (2) sow pollinator variety seed several weeks later; and (3) harvest fruit for seed only from glabrous plants.*

A large number of hybridization procedures have been carried out using "VIC'S VALENTINE" as the $^{\circ}$ parent and the F_1 offspring have shown a number of distinct advantages. Progeny of crosses between "VIC'S VALENTINE" and "Calhoun Grey," "Crimson Sweet," and "Jubilee" showed significant increases in numbers of marketable fruit per plant and size of melons. In a like manner, crosses between "VIC'S VALENTINE" and "Petite Sweet" as well as "Sugar Baby" yielded progeny which produced

^{*} Indeed, seed production of the variety used as the pollinator parent can be accomplished in the same field as long as care is taken in harvesting the fruit. In the cross, for example, of "VIC'S VALENTINE" x "Crimson Sweet," the dark green fruit on glabrous plants are easy to separate from the striped fruit on the hirsute "Crimson Sweet" plants.

Exhibit "D" page 4

7800090

mature fruit ten days earlier than "Peacock." Furthermore, hybrids produced using "VIC'S VALENTINE" quite uniformly exhibited dark green skin color, bright red flesh and black seeds -- all important factors of market acceptability.

In sum, "VIC'S VALENTINE" constitutes a novel, distinct, uniform and stable variety of watermelon which is easily maintained and has exceptionally great value as a parent in hybridization although it is not itself a hybrid.

ASSIGNMENT

Serial No. 7800090
Filed May 30, 1978
TitleWATERMELON VARIETY"
the receipt and sufficiency whereof are hereby acknowledged, the undersigned hereby assigns to UNIVERSITY PATENTS, INC., a Delaware Corporation, 2777 Summer Street, Stamford, Connecticut 06905its successors and assigns
The undersigned hereby authorizes and requests the Commissioner of the Plant Variety Protection Office to issue said Plant Variety Protection Certificate to said assigned UNIVERSITY PATENTS, INC
The undersigned hereby authorizes and requests the attorneys of record in said application to insert in this assignment the date and serial number of said application when officially known.
The undersigned warrants himself to be the owner of the interest herein assigned and to have the right to make this assignment; and further warrants that there are no outstanding prior assignments, licenses, or other rights in the interest herein assigned.
For said consideration the undersigned hereby agrees, upon the request and at the expense of said assignee, its successors and assigns, to execute any and all successor of substitute applications for said novel variety, and any necessary oath or affidavit relating thereto, and any and all applications and other documents for Plant Variety Protection Certificate(s) in foreign countries on said novel variety, that said assignee, its successors or assigns, may deem necessary of expedient, and for the said consideration the undersigned further agrees upon the request of said assignee, its successors or assigns, in the event of any application or Plant Variety Protection Certificate assigned herein becoming involved in Interference, to co-operate to the best of the ability of the undersigned with said assignee, its successors or assigns, in the matters of preparing and executing the preliminary statement and giving and producing evidence in support thereof, the undersigned hereby agreeing to perform, upon request, any and all affirmative acts to obtain said Plant Variety Protection Certificate, both United States and foreign, and vest all rights therein hereby conveyed in the said assignee, its successors and assigns, whereby said Plant Variety Protection Certificate will be held and enjoyed by the said assignee, its successors and assigns, the full end of the term for which said Plant Variety Protection Certificate may be granted as full and entirely as the same would have been held and enjoyed by the undersigned if this assignment and sale had not been made.
WITNESS my hand and seal, this day of

(SEAL)

Maria de la companya de la companya La companya de la co		
ate of Caryons) SS	, 197%, before me, a Notar
ounty of Masses	is day of May	esaid, appeared, ROBERT E. FOSTER II
public in ar	d for the County and	
	to be the same p	erson whose name is subscribed end volunt
to me per instrument	, and acknowledged that he exe the uses and purposes therein ex the uses and purposes therein ex	xpressed.
WI	the uses and purposes therein the uses and purposes therein the	
	ission Expires	Notary Public